

**What is claimed is:**

1. A burner for a heat generator, comprising a swirl generator (1) for a combustion-air flow and means for injecting fuel for producing a main flow (6), and a combustion chamber (2) arranged downstream, characterized in that a cavity (3) is arranged between the swirl generator (1) and the combustion chamber (2), in which cavity (3) a secondary flow (10) can be produced, and this secondary flow (10) encloses the main flow (6).  
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2. The burner as claimed in claim 1, characterized in that the cavity (3) has an annular toroidal shape.  
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3. The burner as claimed in claim 1 or 2, characterized in that injection means for fuel (4) and for combustion air (5) are arranged in the cavity (3).  
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4. The burner as claimed in claim 1, 2 or 3, characterized in that a mixing section (7) is arranged between the swirl generator (1) and the cavity (3).  
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5. The burner as claimed in one of claims 1 to 4, characterized in that a mixing section (7) is arranged between the cavity (3) and the combustion chamber (2).  
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6. The burner as claimed in one of claims 1 to 5, characterized in that the secondary flow (10) can be used as pilot flame.  
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7. A pilot burner for the burner of a heat generator, the burner comprising a swirl generator (1) for a combustion-air flow and means for injecting fuel for producing a main flow (6), and a combustion chamber (2) being arranged downstream of the burner, characterized

in that the pilot burner is configured as a cavity (3) which is arranged between the swirl generator (1) and the combustion chamber (3) and in which a secondary flow (10) can be produced.

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8. The pilot burner as claimed in claim 7, characterized in that the cavity (3) has an annular toroidal shape.

10 9. The pilot burner as claimed in claim 7 or 8, characterized in that injection means for fuel (4) and for combustion air (5) are arranged in the cavity (3).